

CLAIMS

What is claimed is:

- 1 1. A method of specifying a structure, within a computer system, of an instance of a
2 class, the method including the step of:
3 associating with said instance of said class an attribute that is not in said class or any
4 superclass of said class, thereby establishing for said instance said structure
5 that includes storage for data associated with said attribute.
- 1 2. The method of claim 1 wherein the step of associating further includes
2 the steps of:
3 establishing a property bundle that is associated with one or more attributes that are
4 not in said class or any super class of said class; and
5 associating said instance with said property bundle.
- 1 3. The method of claim 2 further comprising the step of:
2 storing within a database, objects that define said instance, said property bundle, and
3 said one or more attributes.
- 1 4. The method of claim 1 further comprising the step of:
2 maintaining an object relational mapping system that indicates a correlation between
3 said instance and data stored in a relational database.
- 1 5. The method of claim 1 wherein said step of associating includes establishing a pointer
2 from said instance to a property bundle.
- 1 6. The method of claim 5 wherein said step of associating includes establishing a pointer
2 from said attribute to said property bundle.

- 1 7. The method of claim 1 wherein a property class contains said attribute.
- 1 8. The method of claim 1 further including the step of:
2 associating a key with said attribute wherein said key identifies said attribute.
- 1 9. The method of claim 8 wherein said key is a user defined key.
- 1 10. The method of claim 1 wherein the step of associating further includes the step of:
2 maintaining a table that includes an entry that indicates that said instance is associated
3 with said attribute.
- 1 11. The method of claim 10 wherein the step of maintaining a table further includes the
2 step of:
3 maintaining said entry to include a key that identifies said attribute.
- 1 12. The method of claim 10 wherein the step of maintaining a table further includes the
2 step of:
3 maintaining said table externally to said instance.
- 1 13. The method of claim 1 wherein the step of maintaining a table further includes the
2 step of:
3 maintaining said table internally to said instance.
- 1 14. The method of claim 1 wherein the step of associating further includes the steps of:
2 storing into said instance a hash table; and
3 locating an entry in said hash table for said attribute.
- 1 15. The method of claim 14 further includes the steps of:

receiving data that is designated as a key for locating said entry in said hash table; and
using said data as said key to locate said entry without determining whether said data
conforms to software rules.

16. The method of claim 1 wherein the class is a file type and said instance is a file of
said file type in a file system wherein the step of associating includes associating with
said file of said file type an attribute that is not associated with said file type or any
super class of said file type.

17. A computer-readable medium carrying instructions for specifying a structure, within a
computer system, of an instance of a class, the instructions including instructions for
performing the step of:
associating with said instance of said class an attribute that is not in said class or any
superclass of said class, thereby establishing for said instance said structure
that includes storage for data associated with said attribute.

18. The computer-readable medium of Claim 17 wherein the step of
associating further includes the steps of:
establishing a property bundle that is associated with one or more attributes that are
not in said class or any super class of said class; and
associating said instance with said property bundle.

19. The computer-readable medium of Claim 18 further comprising instructions for
performing the step of:
storing within a database, objects that define said instance, said property bundle, and
said one or more attributes.

10040578-1250400T
T0822T B250400T

- 1 20. The computer-readable medium of Claim 17 further comprising
2 instructions for performing the step of:
3 maintaining an object relational mapping system that indicates a correlation between
4 said instance and data stored in a relational database.
- 1 21. The computer-readable medium of Claim 17 wherein said step of associating includes
2 establishing a pointer from said instance to a property bundle.
- 1 22. The computer-readable medium of Claim 21 wherein said step of associating includes
2 establishing a pointer from said attribute to said property bundle.
- 1 23. The computer-readable medium of Claim 17 wherein a property class contains said
2 attribute.
- 1 24. The computer-readable medium of Claim 17 further including instructions for
2 performing the step of:
3 associating a key with said attribute wherein said key identifies said attribute.
- 1 25. The computer-readable medium of Claim 24 wherein said key is a user defined key.
- 1 26. The computer-readable medium of Claim 17 wherein the step of associating further
2 includes the step of:
3 maintaining a table that includes an entry that indicates that said instance is associated
4 with said attribute.
- 1 27. The computer-readable medium of Claim 26 wherein the step of maintaining a table
2 further includes the step of:
3 maintaining said entry to include a key that identifies said attribute.

1004053.3250400T
FOEEET 3250400T

1 28. The computer-readable medium of Claim 26 wherein the step of maintaining a table
2 further includes the step of:
3 maintaining said table externally to said instance.

1 29. The computer-readable medium of Claim 17 wherein the step of maintaining a table
2 further includes the step of:
3 maintaining said table internally to said instance.

1 30. The computer-readable medium of Claim 17 wherein the step of associating further
2 includes the steps of:
3 storing into said instance a hash table; and
4 locating an entry in said hash table for said attribute.

1 31. The computer-readable medium of Claim 30 further including instructions for
2 performing the steps of:
3 receiving data that is designated as a key for locating said entry in said hash table; and
4 using said data as said key to locate said entry without determining whether said data
5 conforms to software rules.

1 32. The method of claim 17 wherein the class is a file type and said instance is a file of
2 said file type in a file system wherein the step of associating includes associating with
3 said file of said file type an attribute that is not associated with said file type or any
4 super class of said file type.